

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL AND PREVENTION

MINUTES OF MEETING

Advisory Committee on Immunization Practices
February 9-10, 1993
Atlanta, Georgia

ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES
Centers for Disease Control and Prevention
Auditorium A
February 9-10, 1993

FEBRUARY 9

1:00 PM	General Recommendations on Immunization	Dr. J. Watson
2:00 PM	Update on Immunization Levels of Pre-School Children	Dr. J. Zell
2:30 PM	Pre-Licensure Studies of Hib Conjugate-DTP Combinations	Dr. J. Fritzell C. Naught Dr. J. Haeckel L. Lerle
3:15 PM	BREAK	
3:45 PM	Draft Statement on Hib Vaccine	Dr. J. Zangwill
4:00 PM	Draft ACIP Statement on DTP-HbOC	Dr. J. Sutter Dr. J. Wenger
4:20 PM	Follow-up on MSD Hib Conjugate	Dr. J. Wenger
4:30 PM	Safety of Simultaneous Vaccination: Analysis of VAERS Data	Dr. B. Chen
5:00 PM	Simplification of Immunization	Dr. J. Halsey

FEBRUARY 10

8:00 AM	Influenza Global and U.S. Surveillance Virus Characterization and Influenza Vaccine Strain Selection Revision of Influenza Vaccine Recommendations Revision of Influenza Antiviral Recommendations GBS and 1990-91 Influenza Vaccination	Dr. J. Arden Dr. B. Chen Dr. J. Cox Dr. J. Simonsen
9:30 AM	Group C Meningococcal Meningitis Clusters -- Indications for School/Community Immunization Campaigns	Dr. L. Jackson
10:00 AM	BREAK	

ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES
Centers for Disease Control and Prevention
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FEBRUARY 10 (Continued)

10:30 AM	Injury Compensation Update	M T. Balbier, Jr. N CP
11:00 AM	Update on the National Vaccine Program	D K. Bart N
11:15 AM	Polio in the Netherlands	D F. VanLoon
11:30 AM	Update on BCG Meta-analyses	D L. Geiter
11:45 AM	<u>LUNCH</u>	
12:45 PM	Potential Future Adult Immunization Issues	D P. Gardner D Wm. Schaffner
1:15 PM	Immunization for Health Care Workers: Review of ACIP Recommendations	D M. Alter D C. Shapiro D R. Strikas
2:00 PM	General Recommendations on Immunization	D J. Watson
2:30 PM	Immunization of Bone Marrow Transplant	D M. Grabowsky
2:45 PM	Public Comment	
3:00 PM	ADJOURN	

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MINUTES OF MEETING

Advisory Committee on Immunization Practices
February 9 & 10, 1993
Atlanta, Georgia

COMMITTEE MEMBERS PRESENT

Dr. Samuel L. Katz, Chairman
Dr. Mary Lou Clements
Dr. Barbara Ann DeBuono
Dr. Kathryn Edwards
Dr. Neal Halsey
Dr. Gregory Istre
Dr. Rudolph Jackson
Dr. Carlos Ramirez-Ronda
Dr. Fred Thompson
Dr. Joel Ward

Ex Officio Members

Dr. Carolyn Hardegree (FDA)

Liaison Representatives

Dr. Marvin Amstey (ACOG)
Dr. Pierce Gardner (ACP)
Dr. Caroline B. Hall (AAP)
Dr. Edward Mortimer, Jr. (AMA)
Dr. Georges Peter (AAP)
Dr. Michael Peterson (DOD)
Dr. William Schaffner, II (AHA)
Dr. Susan E. Tamblyn (NACI)
Dr. Ronald C. Van Buren (AAFP)

Acting Executive Secretary

Dr. Stephen Hadler

NAVY ENVIRONMENTAL HEALTH CENTER

Capt. S. William Berg
Capt. Gil Potter

HHS STAFF PRESENT

NATIONAL INSTITUTES
HEALTH

Dr. Regina Rabinovic NIAIP

CENTERS FOR DISEASE CONTROL

Office of the Direct :

Kevin Malone

National Center for Infectious
Diseases

Dr. Miriam Alter
Mary Broom
Dr. Louisa Chapman
Dr. Nancy Cox
Dr. Carmen Deseda
Rafael Harpez
Dr. Kenneth Herrman
Eric Mast
Dr. Joseph McDade
Helen Regnery
Dr. Craig Shapiro

National Center for Prevention
Services

Kenneth Anderson
Dr. Stephen L. Cochran
Dr. Bob Chen
Dr. Vance Dietz
Dr. Eugene Dini
Gary Euler
Conrad Ferrara
Judy Gantt
Dr. Larry Geiter
Jacqueline Gindler
Carrie Hartshorne

National Center for Prevention
Services Continued

Sonja Hutchinson
Gail King
Charles LeBard
Ed Maes
James Mize
Seleda M. Perryman
Dr. Dixie Snider
Dr. Raymond Strikas
Dr. Roland Sutter
Dr. Frederik Van Loon
Dr. John Watson
Dr. Melinda Wharton
Dr. Elizabeth Zell

OTHERS PRESENT

Shelby B. Abernathy, DeKalb County Board of Health
Stefan Antonsson, Forest Laboratories
Thom Balbier, HRSA, DVIC
Dr. Julia Barrett, FDA
Karen Campbell, NAPNAP
Jill W. Chamberlain, Vaccine Bulletin
Kathleen Crozier, Infectious Diseases in Children
E. Esler, FDA/CBER
Catharine Eten, Wyeth-Ayerst
Donna Freeman, FDA/CBER
Bernard Fritzell, Connaught Laboratories, Inc.
Dr. Ian Furminger, Medeva International
Dr. Carol Frankel, Medeva International
Carl Frasc, FDA
Dr. Karen L. Goldenthal, FDA
Jill Hackell, Lederle-Praxis Biologicals
Dr. Gary Horwith, Wyeth-Amerst
Cynthia Howe, Institute of Medicine
Barbara Howe, SmithKline Beecham
Robert Kohberger, Lederle-Praxis Biologicals
Edward B. Levin, North American Vaccine, Inc.
Wenlii Lin, NAVA
Kevin G. Lokay, Merck Vaccine
Carol Marcus-Sekura, FDA/CBER
Charles S. Marwick, JAMA
Sharon Mates, North American Vaccine
Frank Malinoski, Lederle-Praxis Biologicals
Carlton Meschievitz, Connaught Labs
Mike Paradiso, Lederle-Praxis Biologicals
Sharon Phillips, Parke-Davis Co.
Dr. Stanley A. Plotkin, Pasteur-Merieux-Gonnaught
Dr. Gregory A. Poland, Mayo Clinic
Lorraine Radick, Lederle-Praxis Biologicals
Dr. Stuart L. Scheiner, Forest Labs

Claudia Schmidt, Sero-Merieux
Robert L. Scott, Lederle Laboratories
Laura Searcy, National Organization of Pediatric Nurse sociates
and Practitioners
Judith Shindman, Connaught Laboratories Ltd.
Dan Soland, Connaught Labs
Kathleen Stratton, Institute of Medicine
Matt Strasburger, Merck Vaccine Division
Dr. Linda G. Teague, FDA
Tito Ubertini, North American Vaccine
George Welu, Connaught Laboratories, Inc.
Jo White, Merck Research Laboratories
Dr. Jalal Zuberi, Morehouse School of Medicine

Executive Summary

On February 9-10, 1993, the Advisory Committee on Immunization Practices (ACIP) convened at the Centers for Disease Control and Prevention (CDC) to discuss the status of numerous vaccine-preventable diseases and vaccine-related issues. Dr. Samuel Katz, Chairperson, opened the meeting at 1:00 p.m. on February 9. Dr. Walter Orenstein, the new Acting Executive Secretary, was out of town; Dr. Stephen Hadler acted in his stead.

All ACIP and liaison members introduced themselves. The approximately 50 people in attendance also introduced themselves. They included reporters; vaccine manufacturers; FDA, CDC, and Navy personnel; and members of interested health organizations. Dr. Hadler welcomed Dr. Barbara DeBuono, Director of the Rhode Island Department of Health, as a new member. Several members then declared potential conflicts of interest.

General Recommendations on Immunization

Dr. Jay Watson, ID, NCPS, reviewed the major changes that had been made in the draft ACIP statement on general recommendations on immunization. Then ACIP members discussed and voted on issues still outstanding.

Update on Immunization Levels of Pre-School Children

Ms. Elizabeth E. Zell, ID, NCPS, updated the ACIP on the immunization levels of 2-year-olds in 1991. Vaccination levels in this age-group have remained relatively constant since 1985, except for measles, for which vaccination levels have increased to about 80% in 1991. However, only 37%-56% of these children were fully vaccinated with 4 DTP, 3 polio, and 1 measles-containing vaccines. Over 90% of 3- to 11-month-old children had received at least one vaccination.

Pre-Licensure Studies of Hib Conjugate-DTP Combinations

Dr. B. Fritzell from Connaught summarized safety and efficacy data on PRP-T, a new conjugated vaccine, presented data on the combination of PRP-T reconstituted with DTP vaccine. Dr. Fritzell said that three controlled studies have shown that PRP-T/DTP is safe (reactogenicity is similar to that of DTP and PRP-T given separately) and immunogenic (85%-96% have a PRP antibody titer ≥ 1 $\mu\text{g/mL}$).

Dr. J. Haeckel from Lederle summarized safety and efficacy data on Lederle's combined DTP-Haemophilus combination vaccine. She said that large-scale studies show that the safety in infants in a three-dose primary series is excellent. The immunogenicity of the vaccine is equal to if not better than the separate administration of DTP and HbOC.

Draft Statement on Hib Vaccine

Dr. Kenneth Zangwill, BD, NCID, said that since FDA will probably soon license one of the above vaccines, a new ACIP statement for use of these vaccines will be developed. He said that MMWR announcements about new vaccines have been drafted. He requested guidance.

about the issue of carrier priming. Dr. Zangwill requested members to review a document on this subject and send comments back to Gloria Kovach by March 19.

Draft ACIP Statement on DTP-HbOC

Dr. Roland Sutter, ID, NCPS, said CDC would also like to have an ACIP statement available on DTP-HbOC as soon as it is released and briefly went through a draft statement. Members were asked to return comments to CDC by March 19.

Follow-up on MSD Hib Conjugate

Dr. Jay Wenger, DBMD, NCID, updated the ACIP on Merck lots of Hib conjugate vaccine that produced less-than-optimal seroconversion rates. Merck has distributed 120,000 doses of new vaccine, much less than the 350,000 they thought they'd need; phone responses to their announcement of suboptimal lots have also been much less than expected. No additional cases of Hib associated with the questionable lots of vaccine have been reported.

Safety of Simultaneous Vaccination: Analysis of VAERS Data

Dr. Robert Chen, ID, NCPS, said there has been some concern about safety of simultaneous administration of Hib and DTP vaccines in infants. Dr. Gail King, ID, NCPS, reviewed prelicensure data that demonstrated that giving Hib conjugate vaccines together with other infant vaccines is a safe practice. However, CDC will continue to monitor safety in actual use in larger numbers of children.

Mr. John Mullen, ID, NCPS, presented a preliminary analysis on safety of simultaneous administration of DTP and Hib. There has been no increase in reported rates of hospitalization and death following administration of DTP with Hib, compared with rates reported after DTP alone. Additional analyses are under way.

Dr. Chen then discussed future analyses and directions in VAERS.

Hepatitis B Vaccination Programs

Mr. James Mize, ID, NCPS, discussed the implementation of the hepatitis B vaccine program in various states.

Diphtheria--Russia

Dr. Melinda Wharton, ID, NCPS, summarized the current diphtheria epidemic in the Russian Federation, where an estimated 4,000 such cases occurred in 1992. CDC will collaborate on a study to characterize circulating strains, and a vaccine efficacy study has been initiated.

The meeting closed for the day at 6:00 p.m. It began on February 10 at 8:00 a.m.

Influenza

Dr. Nancy Cox, VR, NCID, discussed international influenza activity and the antigenic characteristics of recent influenza viruses that set the context for the influenza vaccine recommendations made by the FDA Vaccine Advisory Panel on January 26. The recommendation for the B component for the influenza vaccine for the 1993-34 season is B/Panama/45/90. The final recommendations for the A(H3N2) and A(H1N1) components are being deferred until additional data are available and WHO makes its annual vaccine recommendations during the week of February 15. Dr. L. Simonsen followed with a brief summary of U.S. surveillance data. Dr. Nancy Arden then reviewed suggested revisions for the influenza vaccine recommendations. Dr. Chen then described the final analysis on the possible association of GBS and flu vaccine during the 1990-91 season. It was shown that, for the high-risk population of persons 18-64 years of age, the benefit clearly outweighed any risk-benefit ratio. Discussion ended in the assignment of an ad hoc committee, composed of Clements, Dr. Halsey, Dr. Mortimer, and Dr. Chen, to come up with acceptable recommendations for the ACIP flu statement.

Group C Meningococcal Meningitis Clusters

Dr. Lisa Jackson briefly updated the group on the recent Canadian experience with increased cases of this disease, and discussed the occurrence and management of outbreak of this disease in the United States. The last ACIP statement on the vaccine for this disease was in 1985. She raised some questions about that statement. Dr. Katz said the Committee was not prepared to revisit this statement now, but asked that the subject be added to a future agenda.

Injury Compensation Update

Mr. T. Balbier, Jr., from the National Vaccine Injury Compensation Program, said that a review of that program had just been completed and submitted to Congress. It is very favorable regarding operations and management, but noted that resources are inefficient. He said that the Secretary of the Treasury has authority to terminate the vaccine excise tax, as of January 1, 1993, and that he has done so; thus, no additional funds are going into the compensation trust fund.

After his presentation, Dr. Katz read a statement from Dr. Ken Bart, who was unable to attend, about the new Administration's proposals regarding immunization. A public hearing is scheduled for February 24. Dr. Katz, who will speak at it on behalf of the ACIP, asked for

direction from the Committee on what to say. Topics brought up were adult vaccines, the need for flexibility in the system, and the importance of a registry and tracking system.

Polio in the Netherlands

Dr. Frederik Van Loon, ID, NCPS, summarized the recent polio outbreak in the Netherlands. A total of 67 cases (all but one in a religious, unvaccinated group) have been reported. The outbreak, which does not appear to have spread to the general population or to other countries, has apparently slowed down dramatically.

Update on the BCG Meta-analyses

Dr. Lawrence Geiter, TB, NCPS, briefly reviewed the BCG meta-analysis project, which was awarded to the Harvard School of Public Health in September.

Potential Future Adult Immunization Issues

Dr. Pierce Gardner said that if the currently recommended vaccines for adults were fully used, 35,000 deaths would be prevented each year. He said that the consensus of experts he has consulted is that the recommended age of immunization for pneumococcal vaccine should be reduced; if it were given at 55 years of age instead of 65, the immune response and duration of that response would be longer. Secondly, he urged that a cost-benefit analysis be undertaken to see if a single, mid-life tetanus-diphtheria toxoid booster would be better than the currently recommended every 10-year booster. Third, he said that the Amantadine recommendations are too broad and are ignored by practicing physicians. Finally, some are wondering if post-immunization serologic testing should be routine, at least for certain target groups.

Dr. Katz asked that the next agenda have a section on adult immunization, with representatives on prisons and colleges. He also asked Dr. Gardner to pull together data from the pending Task Force on Adult Immunization Green Book Committee meeting and present it at the June ACIP meeting.

Dr. William Schaffner urged that the ACIP recommendations be simpler and clearer. He also said that ACIP recommendations needed to be marketed as a product, not simply published in the *MMWR*.

Immunization for HCWs: Review of ACIP Recommendations

Drs. Ray Strikas, ID, NCPS, Miriam Alter, VR, NCID, and Craig Shapiro, VR, NCID, discussed immunization recommendations for HCWs and a revision of the BCG statement. Dr. Alter discussed the issue of post-vaccination testing for hepatitis B surface antibody. Dr. Shapiro discussed hepatitis A immunoprophylaxis for HCWs. Dr. Strikas then led a discussion centered around several questions in this ACIP statement.

Report of Ad Hoc Committee on Statement Regarding GBS within Influenza Statement

Dr. Clements then presented a revised statement on the risk of GBS following influenza vaccine, which the Committee voted to include in the ACIP flu statement.

General Recommendations on Immunization

Dr. Jay Watson went over suggested changes to this ACIP Statement and the group voted on several issues.

Immunization of Bone Marrow Transplant Patients

Dr. Hadler said that progress on an ACIP statement on this subject has stalled and asked for direction. Dr. Katz said not to go forward with the statement for the time being and that he would take the responsibility for finding a group to liaison with on the statement.

Before closing, Dr. Katz asked for public comment. There was none. Members then requested that the June 2-3 ACIP meeting begin at 1:00 p.m. instead of in the morning. Ms. Kovach will see if this can be arranged. The meeting adjourned at 3:40 p.m.

On February 9-10, 1993, the Advisory Committee on Immunization Practices (ACIP) convened at the Centers for Disease Control and Prevention (CDC) to discuss the status of numerous vaccine-preventable diseases and vaccine-related issues. Dr. Samuel L. Katz presided as Chairperson.

Dr. Katz opened the meeting at 1:00 p.m., February 9, by announcing that Dr. Catherine Broome would no longer be Executive Secretary of ACIP because she had been named Acting Director of the Center for Prevention and Injury Control. Dr. Walter Orenstein was the new Acting Executive Secretary, but since he was in Washington advising the new Administration, Dr. Stephen Hadler was acting in his stead.

All ACIP and liaison members introduced themselves. Dr. Katz then asked the approximately 50 people in attendance to introduce themselves. They included vaccine manufacturers; FDA, CDC, and Navy personnel; and members of interested health organizations.

Dr. Hadler welcomed Dr. Barbara DeBuono, Director of the Rhode Island Department of Health, as a new member. Then he announced that there was a new conflict of interest form, Form FS450, that must be filled out by ACIP members and returned to Kitty Armstrong by March 1, 1993. Questions should be addressed to Ms. Gloria Kovach.

Dr. Hadler asked members to declare any potential conflicts of interest. Dr. Ted Fortimer said he was a consultant to Lederle Laboratories. Dr. Katherine Edwards said she was conducting studies with vaccines from Lederle, Merck, Connaught, Evans, Merieux, and Dr. Neal Halsey is currently conducting studies with funding from Connaught, Merck, and Pasteur-Merieux. Dr. Katz is beginning studies with vaccines from Biocine and Microgen. Mary Lou Clements is doing HIV vaccine studies with Biocine, Genetech, Immunogen, Pasteur-Merieux, and Bristol Myers. Dr. Georges Peter is participating in a Merieux vaccine study. Members with conflicts of interest about a particular vaccine were asked to refrain from voting on that particular vaccine.

General Recommendations on Immunization

Dr. Jay Watson, ID, NCPS, reviewed the major changes that had been made in the draft ACIP statement on general recommendations on immunization (Handouts #1 and #2). Then Committee members discussed and voted on issues still outstanding. Those resolved this morning were as follows:

1. Is new Table 8 acceptable? Yes, but add a qualifier regarding the variability of antibody titers in products. Also, should the table state that HIV-infected patients on routine IGIV therapy should receive MMR vaccine? No, with caveat that much of information on Table 8 is calculated, not based on studies with each individual product.
2. Relatedly, when should IG measles prophylaxis be given to measles-exposed patients receiving high-dose IG therapy? Dr. Halsey offered to write up some general guidelines.

3. Do aerosolized steroids cause sufficient immunosuppression to cause reactions to live-virus vaccines? The ACIP voted that immunization should not be delayed and that data are insufficient to suggest that such steroids are a contraindication.
4. What is the recommended distance between two vaccines given in the same limb? Committee consensus was to recommend to 1"-2"to minimize risk of overlapping local reactions.
5. Does oral live typhoid (Ty21a) vaccine interact with other vaccines or antimalarials? ACIP agreed to recommend separation of receipt of Ty21a vaccine and mefloquine by 24 hours.
6. Should parenteral influenza and pertussis vaccines be administered simultaneously or within 3 days of each other? Should document take a stand? Committee voted to delete 3- day statement.
7. Can IPV be given under certain circumstances to pregnant women? Yes. The Committee voted that one 1973 study that suggested malignancies might be associated with this practice was no longer applicable for currently licensed vaccine.

ACIP members also suggested the following: 1. address lapsed vaccinations; 2. have a section on vaccine interchangeability with all vaccines except Hib; 3. scrutinize contraindication table; 4. have a statement to the effect that "the first trimester of pregnancy should not be considered a contraindication to vaccination with tetanus toxoid."

Update on Immunization Levels of Pre-School Children

Ms. Elizabeth E. Zell, ID, NCPS, updated the ACIP on the immunization levels of 2-year-olds in 1991. Vaccination levels in this age-group have remained relatively constant since 1985, except for measles, for which vaccination levels have increased to about 80% in 1991. However, only 37%-56% of these children were fully vaccinated with 4 DTP, 3 polio, and 1 measles-containing vaccines. Over 90% of 3- to 11-month-old children had received at least one vaccination.

Pre-Licensure Studies of Hib Conjugate-DTP Combinations

Dr. B. Fritzell from Connaught summarized safety and efficacy data on PRP-T vaccine, then presented data on the combination of PRP-T reconstituted with DTP. He said that three controlled studies have shown that PRP-T/DTP is safe (reactogenicity is similar to that of DTP and PRP-T given separately) and immunogenic (85%-96% have a PRP antibody titer ≥ 1 $\mu\text{g/mL}$). There were 43 adverse events in Finland (251,000 doses distributed), a rate of 17.1/100,000 doses; in Canada, with 300,000 doses distributed in 1992, no severe adverse reactions were reported except 1 case of high-pitched crying and 1 case of Hib within 48 hours of first vaccination. The FDA will be licensing in a two-step process: PRP-T first; then, after review of data, the combination.

Dr. J. Haeckel from Lederle summarized safety and efficacy data on Lederle's combined DTP-Haemophilus combination vaccine. She said that large-scale studies show that safety in infants in a three-dose primary series is excellent. The immunogenicity of the vaccine is equal to if not better than the separate administration of DTP and HbOC. The response is consistent, by lot, for all antigens.

Draft Statement on Hib Vaccine

Dr. Kenneth Zangwill, BD, NCID, said that since FDA will probably soon license one of the above vaccines, a new ACIP statement for use of these vaccines might be necessary. He referred to two documents being drafted, including a broad update on Hib vaccines, and a working draft of an MMWR announcement of licensure of PRP-T vaccines, which members had been given. The latter document recommends that PRP-T be given in the same schedule as HbOC. He requested guidance about the issue of carrier priming. Dr. Zangwill requested members to review the document (Handout #3) and send comments back to Ms. Kovach by March 19.

Draft ACIP Statement on DTP-HbOC

Dr. Roland Sutter, ID, NCPS, said CDC would also like to have an ACIP statement available on DTP-HbOC as soon as it is released, and briefly went through a draft of one (Handout #4). His and the ACIP's biggest concerns were: 1) if a child started with one Hib vaccine, could he/she switch to another? and 2) whether the vaccine must really be given 2 months apart, especially for a child who starts his/her vaccination late. Dr. Carolyn Haegre, FDA, agreed, and said that data on the differences in efficacy between vaccinations spaced at 1-month compared to 2-month intervals could easily be teased out of existing data from manufacturers. Members were asked to return comments to CDC by March 19.

Follow-up on MSD Hib Conjugate

Dr. Jay Wenger, DBMD, NCID, updated the ACIP on Merck lots of Hib conjugate vaccine that had produced less-than-optimal seroconversion rates. Merck has distributed 20,000 doses of vaccine to revaccinate children receiving these lots, much less than the 1,000 they thought they'd need. Phone responses to their announcement of suboptimal lots have also been much less than expected. No additional cases of Hib associated with the questionable lots of vaccine have been reported.

Safety of Simultaneous Vaccination: Analysis of VAERS Data

Dr. Robert Chen, ID, NCPS, said there has been some concern about safety of simultaneous administration of Hib and DTP vaccines in infants. Dr. Gail King, ID, NCPS, reviewed prelicensure data that demonstrated that giving Hib conjugate vaccines together with other infant vaccines is a safe practice. However, CDC will continue to monitor safety in actual use in larger numbers of children, including phase IV trials, analysis of VAERS data, and systemic examination of specific events through the large, linked databases.

Mr. John Mullen, ID, NCPS, briefly reviewed the history of post-marketing surveillance for vaccine adverse events. Some 800-1,200 reports are now received a month through VAERS, for a total of 22,000 thus far. He then presented a preliminary analysis on the issues of safety of simultaneous administration of DTP and Hib. There has been no increase in reported rates of hospitalization and death following DTP vaccination given simultaneously with Hib compared with DTP given alone. Additional analyses are under way to examine seizures and prolonged crying to see if any specific diagnoses stand out.

Dr. Chen then discussed future analyses and directions in VAERS. He explained that VAERS, although useful for examining ecologic trends and generating hypotheses, in many instances cannot assess whether a vaccine actually caused an adverse event. He said that controlled studies are needed to test hypotheses. One involving large-linked database (LLDB) studies at four HMOs is under way. By 1995, these LLDB should be able to detect associations between rare events that occur in 1/100,000 to 300,000 doses.

Hepatitis B Vaccination Programs

Mr. James Mize, ID, NCPS, discussed the implementation of the hepatitis B vaccine program in various states. He said that a recent CDC survey reveals that 82% of immunization programs have a universal hepatitis B program. Most (53%) give HB-1 at birth. Most projects are giving hepatitis B with other injections, as opposed to scheduling additional visits. Two-thirds of immunization projects are using carryover balances of federal, state, and local funds to support their universal immunization programs and are not willing to make arbitrary decisions about whom to vaccinate.

Diphtheria--Russia

Dr. Melinda Wharton, ID, NCPS, summarized the current diphtheria epidemic in Russia, which she recently visited. There were an estimated 4,000 such cases in the Russian Federation in 1992, concentrated in large urban areas. This rate is puzzling because,

officially, vaccine coverage is high. CDC will collaborate on a microbiologic study to characterize circulating strains, and a vaccine efficacy study has been initiated.

The meeting closed for the day at 6:00 p.m. It began on February 10 at 8:00 a.m.

Influenza

Dr. Nancy Cox, VR, NCID, discussed international influenza activity and the antigenic characteristics of recent influenza viruses. These set the context for the influenza strain recommendations that were made by the FDA Vaccine Advisory Panel, which met in Washington on January 26. Worldwide, it is a quiet influenza season. Influenza is predominating in Europe and North America. Japan, which has an extensive surveillance system, has found that half of their 450 isolates are influenza A(H3N2) and half influenza B. The recommendation for the B component for the influenza vaccine for the 1992-93 season is B/Panama/45/90. The final recommendations for the A(H3N2) and A(H1N1) components are being deferred until additional data are available and WHO makes its annual vaccine recommendations during the week of February 15.

Dr. L. Simonsen, VR, NCID, described the U.S. surveillance system in the United States and said that, thus far, the 1992-93 flu season has been quite typical for a B season, with less morbidity and no detectable influenza-related mortality observed so far on the national level.

Dr. Nancy Arden then went over changes in the draft ACIP statement prevention of influenza (Handout #5). By vote, the ACIP agreed to delete the phrase on p. 1 "vaccine cannot cause influenza"; to accept the bold-face new paragraph on p. 4 regarding the effectiveness of the vaccine (except to make it two paragraphs); to modify recommendation #1 on p. 6 to recommend flu vaccination for all hospital personnel, not just high-risk ones; to change the phrasing regarding students on p. 8 by deleting the phrase about decisions by encouraging vaccination with a caveat about "depending upon resources available"; to modify the paragraph on p. 8 about pregnant women by deleting the second-to-last sentence, and changing the last sentence to state "regardless of the stage of pregnancy."; to delete the phrase "but those at highest risk of fatal pneumococcal disease" from paragraph on p. 11 and the last sentence of the next paragraph; on p. 10, to delete the sentence in paragraph 3 on "warfarin and theophylline" and substitute a sentence to the effect that there are no increased adverse reactions among asthmatics"; and, on p. 15, to soften the recommendation that Amantadine be administered "to all health-care providers" in outbreak situations and to provide more extensive revision on toxicity. (Dr. Hardegree also requested that the antiviral section have a chance to look at this document because of the possibility of new warnings for the package inserts for Amantadine).

There was some discussion about issuing a recommendation to vaccinate all students against influenza, but the group voted that they were not ready to recommend that as a public health measure. Dr. Katz suggested it be put on the agenda for a subsequent meeting, that Dr. Ted Eickhoff be invited to speak about whether people who get annual shots have different responses to vaccines, and to revisit the goals of the influenza vaccination program.

Dr. Arden said that CDC hoped to publish the flu document by May in the *MMWR*. It was suggested that the flu document be published in May but the ACIP statement on Amantadine (Handout #6) be delayed until next fall. The ACIP voted to endorse this idea.

Dr. Chen described the final analysis on the possible association of GBS and flu vaccine during the 1990-91 season. Data suggest that a 15- to 64-year-old at high risk of influenza would have a low risk (5 in a million) of getting GBS from the vaccine that year but the same time would reduce the risk (1/10,000) of dying from influenza if not protected by vaccine. Thus, for the high-risk population of 18- to 64-year-olds, the benefit clearly outweighed the risk. For the low-risk population in this age-group, there was a balanced risk-benefit ratio. Dr. Chen also asked for approval of changes to his document annex #3, mailed to members, regarding the GBS findings. The group voted, 8-to-7, on option D but since this vote was so close, discussion reopened and ended in the assignment of an ad hoc committee, composed of Dr. Clements, Dr. Halsey, Dr. Mortimer, and Dr. Chen, to come up with acceptable wording.

Group C Meningococcal Meningitis Clusters

Dr. Lisa Jackson briefly updated the group on the recent Canadian experience with increased cases of this disease, and discussed the occurrence and management of outbreaks of this disease in the United States. The last ACIP statement on the vaccine for this disease was in 1985. Dr. Jackson asked the ACIP to determine whether, in the 1985 ACIP statement on this subject: 1) the methods of defining an outbreak and instituting vaccination are appropriate; and 2) there is a need for more specific ACIP recommendations for the management of group C outbreaks? Dr. Katz said the Committee was not prepared to revisit this statement now, but asked that the subject be added to a future agenda and suggested revisions be mailed out in advance.

Injury Compensation Update

Mr. T. Balbier, Jr., from the National Vaccine Injury Compensation Program, said that a review of that program had just been completed and submitted to Congress. It was as very favorable regarding operations and management, but noted that resources are insufficient. Steps have been taken to implement the two recommendations made by the program review to HHS. A proposed revision of the Injury Compensation Table has been published, and a public hearing held. He also noted that there is a new number for the U.S. Court of Federal Claims: 1-202-219-9657. Regarding the Internal Revenue Code provisions for vaccine excise taxes, he said the Secretary of the Treasury has authority to terminate the excise tax, as of January 1, 1993, and he did so; thus, no additional funds are going into the compensation trust fund.

After his presentation, Dr. Katz read a statement (Handout #7) from Dr. Ken Balbier who was unable to attend, about the new Administration's proposals regarding immunization, including an immunization registry and recall system and federal purchase of recommended childhood vaccines. Because of concerns about the latter's effect on the vaccine industry, a public hearing is scheduled for February 24. Dr. Katz, who will speak at it on behalf of the ACIP, asked for direction on what to say. Topics brought up were to

mention adult vaccines, the need for flexibility in the system, and the importance of the registry and tracking system.

Polio in the Netherlands

Dr. Frederik Van Loon, ID, NCPS, summarized the recent polio outbreak in the Netherlands. A total of 67 cases (all but one in a religious, unvaccinated group) have been reported. The outbreak, which does not appear to have spread to the general population or to other countries, has apparently slowed down dramatically.

Update on the BCG Meta-analyses

Dr. Lawrence Geiter, TB, NCPS, briefly reviewed the BCG meta-analysis project, which was awarded to the Harvard School of Public Health in September. The objectives of the analysis were to review the literature on the efficacy of BCG in humans, to assess the quality of available data, and to report back on the feasibility of a meta-analysis. Their first report just came in. A total of 70 reports and abstracts on the subject have been identified. Regarding health-care workers (HCWs), 12 studies adequate to review have been located; 7 have been reviewed--enough to provide a narrative summary, at the least, and possibly a meta-analysis. The Harvard School is not confident about its ability to look at efficacy by vaccine strain. Data are also very sparse for efficacy in adults; the group questions that a meta-analysis can be done by age-group and suggests a narrative summary instead. The final report from Harvard is due in May or June.

Potential Future Adult Immunization Issues

Dr. Pierce Gardner said that if the currently recommended vaccines for adults were fully utilized, 35,000 deaths would be prevented each year. He said that the consensus of experts he has consulted is that the recommended age of immunization for pneumococcal vaccine should be reduced; if it were given at 55 years of age instead of 65, the immune response and duration of that response would be longer. Secondly, he urged that a cost-benefit analysis be undertaken to see if a single, mid-life tetanus-diphtheria toxoid booster would be better than the currently recommended every 10-year booster. Third, he said that the Amantadine recommendations are too broad and are ignored by practicing physicians. Concerns of physicians--about the toxicity of the 100-mg dose, uncertainty of diagnosis, and uncertain benefits in the face of severe complications--need to be considered. Finally, some are wondering if post-immunization serologic testing should be routine, at least for certain target groups.

Dr. Katz asked that the next agenda have a section on adult immunization, including representatives on prisons and colleges. He also asked Dr. Gardner to pull together data from the pending Task Force on Adult Immunization Green Book Committee meeting and present it at the June ACIP meeting.

Dr. William Schaffner urged that the ACIP recommendations be simpler and clearer. He also said they also need to be marketed as a product, not simply published in the MMWR.

Immunization for HCWs: Review of ACIP Recommendations

Drs. Ray Strikas, ID, NCPS, Miriam Alter, VR, NCID, and Craig Shapiro, VR, NID, discussed Immunization Recommendations for HCWs (Handout #8) and a revision of the BCG section (Handout #9). Dr. Alter discussed the issue of postvaccination testing for hepatitis B surface antibody. One member suggested that the document should contain more liberal recommendations for postvaccination testing of HCWs. Dr. Alter stated that this document should be consistent with the most recently published ACIP recommendations on hepatitis B vaccine issued in November 1991. Dr. Alter noted that regarding use of immunoglobulins for prevention of hepatitis C following needlestick accidents, the draft HCW document now states (on p. 28) that new recommendations can't be made and reiterates previous recommendations that high-dose immune globulin be considered.

Dr. Shapiro discussed hepatitis A immunoprophylaxis for HCWs. He said that outbreaks of hepatitis A have occurred among HCWs, and that when they have, immune globulin has been effective in preventing further transmission. However, based upon seroprevalence data, the occupational risk of hepatitis A to HCWs in general appears to be low. Therefore, whether hepatitis A vaccine should be used in HCWs has not yet been determined.

Dr. Strikas then led a discussion centered around several questions. It was decided to add a line to the effect that "arthropathy following rubella vaccine has been the subject of considerable study and the reader is referred to. . ." It was decided not to add recommendations on needlestick injuries or medical students. Regarding MMR vaccine's being recommended when any of the three individual antigens would be recommended but only MMR is available, the Committee decided that the current statement (p. 19) is not as persuasive as the ACIP wants. Dr. Katz asked Dr. Strikas to have that section redone. The ACIP also decided to insert specific ACIP recommendations about varicella vaccine if the vaccine is licensed. Relatedly, the ACIP voted that normal but serosusceptible HCWs should not routinely be given VZIG. In addition, a brief mention of the role, if any, for antiviral (e.g., acyclovir) treatment of varicella should be included. Regarding polio, the ACIP decided to delete the hospital requirements for polio vaccination of HCWs (except for caveats about a case or outbreak; see pp. 31-32) and to list polio vaccination under foreign travel. It was also decided to omit the rabies section and mention it under foreign travel. Any other comments on this document were requested within 6 weeks.

Report of Ad Hoc Committee on Statement Regarding GBS within Influenza Statement

Dr. Clements then presented the revised statement on GBS:

Unlike the 1976-77 swine influenza vaccine, subsequent vaccines prepared from other virus strains have not been clearly associated with an increased frequency of Guillain-Barre syndrome. However, it is difficult to make a precise estimate of risk for a rare condition such as GBS. In 1990-91, although there was no overall increase in frequency of GBS among vaccine recipients, there may have been a small increase in GBS cases in vaccinated persons 64 years of age, but not in those 65 years or older. In contrast to the swine influenza vaccine, the epidemiologic features of the possible association between the 1990-91 vaccine with GBS were not as convincing. Even if GBS is a true vaccine effect, the very low rate would be more than compensated by disease prevented by the vaccine.

The group voted to accept this statement.

General Recommendations on Immunization

Dr. Watson went over suggested changes to this ACIP Statement (Handout #2). The group voted to delete the section on "Future Vaccines and Vaccination Schedules" on page 18. The group also voted that the paragraph on polio vaccination during pregnancy (pages 3-34) should be redone to clarify about killed and live-virus vaccines. Regarding jet injectors, the ACIP accepted, with minor changes, Dr. Watson's revised sentences on this subject except that they decided that indications of "higher prevalence" areas (when jet injectors would be recommended) should be defined by examples (e.g., needle-using drug-users), not by rates or numbers. It was also suggested that a sentence be added to the effect that "before embarking on a mass immunization program using jet inoculation, consult those who have had experience." Regarding the issue of the interchangeability of vaccines, this is noted to be acceptable for DTP/DT/DTaP and for hepatitis B vaccines, when indicated; however, it was decided that further data are necessary for Hib vaccines. Finally, regarding the issue of whether steroids cause sufficient immunosuppression to cause severe reactions to live-virus vaccines, the ACIP voted to 1) keep the current language in the revised handout and 2) to include a statement that although theoretical concerns have been raised, there are no published data to support increased severe reactions to vaccine in these persons; therefore, vaccination should not be delayed.

Immunization of Bone Marrow Transplant Patients

Dr. Hadler, replacing the scheduled Dr. M. Grabowsky, said that 20 experts on bone marrow transplantation were sent draft copies of an ACIP statement on this subject, and only 6 replies were received. He asked the Committee if an ACIP statement on this subject should be jointly authored by the ACIP and the American Society of Hematology or if it should be resolved and it should be published as an ACIP statement. Dr. Katz said for the time being, not to go forward with the statement and that he would take the responsibility for finding a group to liaison with on the statement.

Before closing, Dr. Katz asked for public comment. There was none. Members asked when this can be requested that the June 2-3 ACIP meeting begin at 1:00 instead of the morning. This can be arranged, it will be. Dr. Gardner also said that he would send 25 copies of the Green Book to Ms. Kovach to distribute to ACIP members and liaisons. The meeting adjourned at 3:40 p.m.

I hereby certify that, to the best of my knowledge, the foregoing summary of minutes is accurate and complete.


Samuel L. Katz, MD, Chairperson Date: 27 April 1993